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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/640,802	08/17/2000	Tai Anh Cao	AUS9-2000-0285-US1	6378

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EXAMINER

WANG, TED M

ART UNIT PAPER NUMBER

2634

DATE MAILED: 09/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	09/640,802	CAO ET AL.	
	Examiner	Art Unit	
	Ted M. Wang	2634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-16 and 18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-4, 7-10, 13, 14 and 18 is/are allowed.
- 6) ☒ Claim(s) 5, 6, 11, 12, 15 and 16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 August 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)          |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. <u>7/14/05 &amp; 9/14/05</u> .                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____.  | 6) <input type="checkbox"/> Other: _____.                                   |

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments, filed on 06/30/2005, have been fully considered but they are not persuasive. The Examiner has thoroughly reviewed Applicants' arguments but firmly believes that the rejection reasonably and properly meet the claimed limitations.

#### Claims 5, 6, 11, 12, 15, and 16

(1) *Applicants' argument* – “Ordinals such as “second” and “third” are used in these claims merely to distinguish between respective elements of the same type and do not imply any particular order or precedence. Thus, there is no requirement that a “first” element of a given type be reference in a claim before a “second” element of that type is referenced. Perhaps more importantly, the ordinals used in the claims correspond to the ordinals used to name elements in the disclosure. For example, claim 5 is directed to the second signal (signal B) decoding arrangement shown at dashed box 201 in Figure 2 and dashed box 403 in Figure 4. Element (a) of claim 5 refers to a second differential receiver and a reference voltage multiplexer having second and third reference voltage inputs. The second and third reference voltage inputs correspond to V2 and V3 in Figures 2 and 4. In the second signal decoding arrangement shown in the dash box 201 in Figure 2, the “second differential receiver” comprises the differential receiver 203 as described in the paragraph beginning at page 8, line 22 of the disclosure. In the second signal decoding arrangement shown in

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dashed box 403 in Figure 4, the "second differential receiver" comprises the differential receiver 405 as described in the paragraph beginning at page 9, line 25 of the disclosure." as recited.

*Examiner's response* -- In response to applicant's argument addressed in the above paragraph, the claim 4 and 5 and 6 are in different claim trees that are not related each other. A second differential receiver without introducing first differential receiver, and a second and third reference voltage without introducing first voltage, for example claim 5, make the claim 5 indefinite that there is insufficient antecedent basis for this limitation in the claim. Thus, for the explanation addressed in the above paragraph, the rejection under 35 U.S.C. 112 second paragraph is adequate.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 5, the limitation of "second and third reference voltage inputs" in line 3 and "a second differential receiver" in line 4 as recited, is unclear since -- first reference voltage input -- and -- a first differential receiver --, have not been introduced previously.
4. Claim 6, the limitation of "an addition reference multiplexer" in line 2 and "fourth, fifth, sixth, and seventh reference voltage inputs" in lines 3-4, and "a third differential receiver" in line 5, is unclear since -- a reference multiplexer --, -- first,

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second, and third reference voltage inputs --, and -- a first differential receiver and a second differential receiver --, have not been introduced previously.

5. Claim 11, the limitation of "second and third reference voltage inputs" in line 7 and "a second differential receiver" in line 8, is unclear since -- first reference voltage input -- and -- a first differential receiver --, have not been introduced previously.

6. Claim 12, the limitation of "an addition reference multiplexer" in line 6 and "fourth, fifth, sixth, and seventh reference voltage inputs" in lines 7-8, and "a third differential receiver" in line 9, is unclear since -- a reference multiplexer --, -- first, second, and third reference voltage inputs --, and -- a first differential receiver and a second differential receiver --, have not been introduced previously.

7. Claim 15, the limitation of "second and third reference voltage inputs" in line 4, "a second differential receiver" in line 6, "an addition reference multiplexer" in line 9, "fourth, fifth, sixth, and seventh reference voltage inputs" in lines 10-11, and "a third differential receiver" in line 12, is unclear since -- first reference voltage input --, -- a first differential receiver --, -- a reference multiplexer --, and -- first, second, and third reference voltage inputs --, have not been introduced previously.

8. Claim 16, the limitation of "an addition reference multiplexer" in line 6 and "fourth, fifth, sixth, and seventh reference voltage inputs" in lines 7-8, and "a third differential receiver" in line 9, is unclear since -- a reference multiplexer --, -- first, second, and third reference voltage inputs --, and -- a first differential receiver and a second differential receiver --, have not been introduced previously.

***Allowable Subject Matter***

9. Claims 1-4, 7-10, 13, 14, and 18 are allowed.
10. Claims 5, 6, 11, 12, 15, and 16 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.
11. The following is an examiner's statement of reasons for allowance.
- The prior art fails to teach an electronic circuit of independent Claims 1, 7, and 13 that specifically comprises the following:
    - The instant application is deemed to be directed to a non-obvious improvement over the admitted prior art of the instant application and the invention patented in Pat. No. US 3,993,867, US 5,541,535, 5,761,246, and 6,226,330. The improvement comprises decoding circuitry coupled to the interface node, the decoding circuitry for detecting the combined signal at the interface node and decoding the signals from the two or more separate electronic circuits responsive to the combined signal.
12. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

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13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

14. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ted M. Wang whose telephone number is 571-272-3053. The examiner can normally be reached on M-F, 7:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 571-272-3056. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ted M Wang  
Examiner  
Art Unit 2634

Ted M. Wang



**STEPHEN CHIN**  
**SUPERVISORY PATENT EXAMINE**  
**TECHNOLOGY CENTER 2600**